

*Case Report*

Gall Bladder Carcinoma Presenting As a Polyp: An Interesting Incidental Finding With a Brief Review of Literature

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ABSTRACT

Polypoid lesions of gall bladder require a histopathological examination to rule out any malignancy. Gallbladder carcinoma is a relatively rare neoplasm with relatively higher incidence reported in certain countries. This tumour has a poor prognosis probably due to delayed presentation and early spread.

Key words- Adenocarcinoma, gall bladder, polyp

INTRODUCTION

Gall bladder carcinoma (GBC) is the most common malignant tumour of the biliary tract Worldwide and it ranks fifth among the gastrointestinal cancers. GBC is a relatively rare entity and reported to be diagnosed in 0.3-1.5% of all cholecystectomy specimens. ⁽¹⁾ The prevalence of gallbladder polyps varies from 0.3- 12% in healthy adults undergoing abdominal ultrasonography. ⁽²⁾ Incidental detection of GBC is reportedly varies from 0.19-3.3% in various studies. ⁽¹⁾

CASE REPORT

A 58 yr old female patient visited surgery outpatient department of a tertiary care hospital with complaints of pain abdomen, early satiety and post meal distension for past one week. There was no other comorbidities or any significant

history. On examination of the abdomen, a soft and an ill defined, non-tender mass measuring 4x3 cm was palpable in the epigastrium. This was not associated with rigidity and guarding. Routine haematological and biochemical parameters were within normal limits. A contrast enhanced computed tomography abdomen revealed an enhancing polypoidal lesion measuring 2.3x1.1 cm in the fundus of the gall bladder with no pericholecystic extension (Figure 1). Patient underwent laparoscopic cholecystectomy and the specimen was submitted for histopathologic examination. Grossly, the gall bladder weighed 14gms and measured 6.5x3 cm. On cut open, an irregular nodular polyp measuring 2x1.3 cm located in the fundus was noted which on cut section showed grey white areas (Figure 2). Single lymph node was identified at the neck measuring 0.5x0.5

cm. Microscopy of the fundal polyp showed a tumour with villous projections lined by columnar epithelium with cells showing loss of polarity, abundant vacuolated cytoplasm few with cytoplasmic mucin, pleomorphic vesicular nuclei and prominent nucleoli. The malignant glands are arranged back to back infiltrating into the muscularis along with tumour giant cells and bizarre forms (Figure 3,4). The isolated lymph node did not show any evidence of metastasis. A diagnosis of gall bladder adenocarcinoma was given. Patient was referred to oncology, a staging of T_{1s} N₀ M₀ was made and she was started on chemotherapy with capecitabine. Presently the patient had taken 2 cycles of chemotherapy and has no fresh complaints.

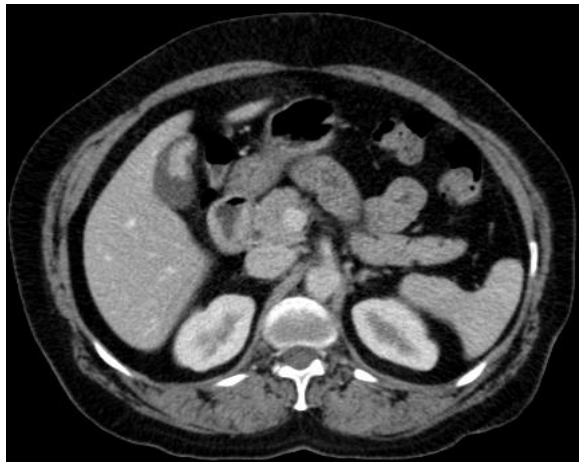


Figure 1- Contrast enhanced Computed Tomography Abdomen : reveals a homogeneously enhancing intraluminal polypoidal mass in fundal region of gall bladder



Figure 2- An irregular nodular polyp in the fundus with grey white areas on cut section

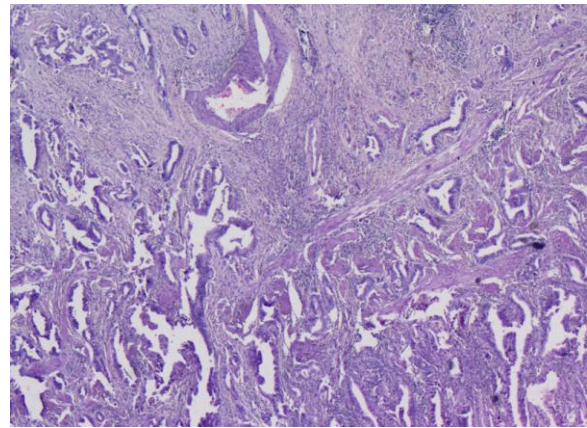


Figure 3- Malignant glands arranged back to back and infiltrating into the muscularis

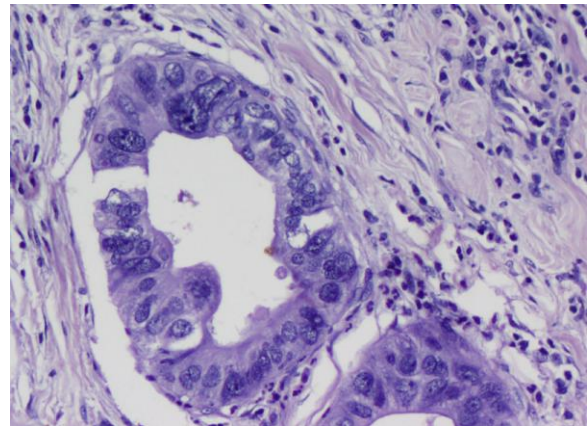


Figure 4- Tumour cells showing loss of polarity, abundant vacuolated cytoplasm, pleomorphic vesicular nuclei and prominent nucleoli

DISCUSSION

Polypoid gallbladder lesions include lesions from adenomas to malignancies. The reported incidence of gallbladder polyps is 4.3–6.9%.⁽³⁾ Malignant lesions account for 3% to 8% of all the polypoid lesions.⁽⁴⁾ GBC was first described in the year 1777 by de Stoll.⁽⁵⁾ It is a relatively rare neoplasm, but the most common cancer of the biliary tree. GBC shows a marked geographical variation in its incidence, with the highest rates been reported in India and Chile.⁽⁶⁾

Mihara et al⁽⁷⁾ in their study where mass screening program for digestive cancers using ultrasonography in Japan have found prevalence of GBC in the general population to be 0.011%, while the prevalence of gallbladder polyps was reported as 4.3-6.9%.

GBC is more commonly seen in women and the frequency increases with age. ⁽⁸⁾ The precise etiology is yet to be established however it is proposed to be multifactorial. The interplay of genetic susceptibility, lifestyle factors and infections in the process of carcinogenesis has still to be understood. ⁽⁹⁾ Probable associations include gall stones, cholelithiasis, an anomalous pancreaticobiliary junction, focal mucosal microcalcifications, obesity, high fat diet, multiparity, use of estrogens and chronic infections with Salmonella and Helicobacter species. ^(9,10) Dysplasia-carcinoma sequence is the widely accepted theory for development of GBC. ⁽¹⁰⁾ Possibility of arising from a pre-existing adenoma also exists.

Confirming the benign nature of the polypoidal lesion of gall bladder pre-operatively either clinically or radiologically is difficult. On radiology, findings like diffuse thickening of the wall, mass in the GB fossa, intraluminal mass and associated cholelithiasis, biliary duct dilatation, invasion of the adjacent structures and distant metastasis are noted. ⁽¹¹⁾ A general awareness of these features may enhance the preoperative diagnoses, however proper clinical history and a high index of suspicion are prerequisite for detecting GBC. A histopathologic confirmation is mandatory. Age of the patient more than 50 years and the size of the gall bladder polyp more than 1cm are considered to be the risk factors and favours malignancy. ⁽²⁾

GBC patients may have variable presentations. They usually present with right sided abdominal pain, nausea, vomiting, jaundice, loss of appetite and weight. Our case presented with pain abdomen. Some patients can be entirely asymptomatic and detection of malignancy may be an incidental finding. ^(11,12) Due of this, routine histopathological examination of all resected gall bladder specimens is

recommended for countries with high incidence. ⁽¹³⁾

Grossly, GBC show appearances ranging from a small nodule to a polypoid growth or diffuse thickening of the wall. Nearly 60% of GBC cases arise in the fundus, 30% in the body and 10% in the neck of the gall bladder. ⁽⁶⁾ In the present case the polypoidal growth was noted at the fundus. On microscopy, approximately 84% of the GBCs are adenocarcinomas, rest being constituted by squamous, adenosquamous and other rare carcinomas. ^(10,14) GBCs can also be classified according to the depth of infiltration, early with mucosal or muscular layer infiltration and advanced with subserosal or serosal infiltration. ⁽¹⁰⁾ Our case was in the early stage of malignancy.

Early cancers have a good overall survival rate of nearly 90%. Lesions confined to mucosa are treated with cholecystectomy alone. For advanced stages radical cholecystectomy along with lymph node dissection is preferred. For inoperable cases palliative treatment is recommended. Recently started neoadjuvant chemotherapy uses drugs such as 5 fluorouracil, bevacizumab, oxaliplatin and capecitabine ⁽⁶⁾ the prognosis depends on stage of the disease at the time of diagnosis and the local advancement of the tumour. Mazer et al ⁽¹⁵⁾ conducted a review from 1984 till the year 2008 and reported that incidental tumours are usually of lower stage, better differentiated, have lower rates of metastasis and higher overall survival rate in comparison to the suspected GBC cases. But according to a recent meta-analysis by Choi et al ⁽¹⁶⁾ most of the incidental GBCs are of T2 or T3 and require revisional surgery for further management. ^(8,16)

CONCLUSION

GBCs are rare, but highly aggressive disease especially when detected at a late

stage. It has multifactorial etiology and variable clinical presentations. Its dismal prognosis is due to diagnosis at an advanced stage; however incidental detection of GBC usually occurs at an earlier stage. Thus it carries a better prognosis than non incidentally found symptomatic cases.

REFERENCES

1. Waghmare RS, Kamat RN. Incidental gall bladder carcinoma in patients undergoing cholecystectomy: A report of 7 cases. *J Assoc Physicians India* 2014;62:793-6
2. Vijayakumar A, Vijayakumar A, Patil V, Mallikarjuna MN, Shivaswamy BS. Early Diagnosis of Gallbladder Carcinoma: An Algorithm Approach. *ISRN Radiol.* 2012 Oct 18;2013:239424
3. Inui K, Yoshino J, Miyoshi H. Diagnosis of gallbladder tumors. *Intern Med.* 2011; 50(11):1133-6
4. Lee KF, Wong J, Li JCM, Lai PBS. Polypoid lesions of the gallbladder. *Am J Surg.* 2004;188(2):186-90
5. De Stoll M. *Rationis mendendi in practice Unindobonensi.* Part 1. Vienna: Bernard, 1777
6. Reid KM, Ramos-De la Medina A, Donohue JH. Diagnosis and surgical management of gallbladder cancer: a review. *J Gastrointest Surg.* 2007; 11(5):671-81
7. Mihara S, Yoshioka R, Tamada M, et al. Update of ultrasonographic screening for gallbladder cancer in mass survey. *Tan to Sui* 2005;26:801-4
8. Siddiqui FG, Memon AA, Abro AH, Sasoli NA, Ahmad L. Routine histopathology of gallbladder after elective cholecystectomy for gallstones:waste of resources or a justified act? *BMC Surg.* 2013;13(1):1
9. Randi G, Franceschi S, La Vecchia C. Gall bladder cancer worldwide: Geographical distribution and risk factors. *Int J Cancer* 2006;118:1591-1602
10. Goldin RD, Roa JC. Gallbladder cancer: A morphological and molecular update. *Histopathology.* 2009;55(2):218–29
11. Rooholamini SA, Tehrani NS, Razavi MK, Anh H Au, Hansen GC, Ostrzega N, Verma RC. Imaging of gall bladder carcinoma. *RadioGraphics* 1994;14:291-306
12. Khoo JJ, Nurul AM. A clinicopathological study of nine cases of gallbladder carcinoma in 1122 cholecystectomies in Johor, Malaysia. *Malays J Pathol.* 2008;30(1):21-6
13. Agarwal AK, Kalayarasan R, Singh S, Javed A, Sakhuja P. All cholecystectomy specimens must be sent for histopathology to detect inapparent gallbladder cancer. *International hepato pancreato biliary association Hpb (oxford)* 2012; 14(4):269-73
14. Dowling GP, Kelly JK. The histogenesis of adenocarcinoma of the gallbladder. *Cancer.* 1986;58(8):1702-8
15. Mazer LM, Losada HF, Chaudhry RM, Velazquez-Ramirez G a., Donohue JH, Kooby D a., et al. Tumor Characteristics and Survival Analysis of Incidental Versus Suspected Gallbladder Carcinoma. *J Gastrointest Surg.* 2012;16(7):1311-7
16. Choi KS. Clinical characteristics of incidental or unsuspected gallbladder cancers diagnosed during or after cholecystectomy: A systematic review and meta-analysis. *World J Gastroenterol.*2015;21(4):1315-23.

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